UNITED STATES PATENT AND TRADEMARK OFFICE

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10/803,881	03/19/2004	Katsuhito Nishimura	723-1497	7151

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *30 October 2007*.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-26* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *1-26* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on *19 March 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a) ☐ All   b) ☐ Some *   c) ☐ None of:
         1. ☐ Certified copies of the priority documents have been received.
         2. ☐ Certified copies of the priority documents have been received in Application No. _____.
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date *8/14/2007*.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 10/30/2007 has been entered. Currently claims 1-

26 are pending in the application.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizumoto

(US 6,409,597 B1) in view of Fukuda (US 6,670,957).

Re claim 1. Mizumoto as previously indicated in the last office action discloses a game apparatus

in which a virtual camera (col 1, lines 32-40) arranged in a three-dimensional game space (col 6,

lines 1- 12) is made to follow a target location determined by a location of a player character in

the game space so that a behavior of the player character in the game space is displayed in a

display (abstract; col 1, lines 1-17; col 8, lines 6-19) as a game image, comprising: an input-

information obtaining programmed logic circuitry for obtaining input information input through

a controller by a player at intervals of a predetermined number of frames in order to move said

player character in said game space (col 1, lines 55-67; col 2, lines 1-15; col 7, lines 10-16 and

21-67); a location updating programmed logic circuitry for updating the location of said player

character and said target location in said game space based on said input information; a virtual-

camera-location updating means for updating in order a location of said virtual camera in such a

manner that a distance from said target location to a reference location determined in a

predetermined manner toward the location of said virtual camera at a predetermined ratio is

shortened irrespective of whether or not said player character has continued to move (Mizumoto

discloses one of such example in col 8, lines 38-43 that the viewpoint is positioned to be the

closest to the player's car by setting set point GP at zero, and moving speed MS at 4) and a

game-image generating means for generating the game image based on the updated location of

said player character and location of said virtual camera (abstract; col 1, lines 55-67; col 2, lines

1-21; col 3, lines 25-40; col 8, lines 20-65; figures 5-10; col 13, lines 14-27).

Mizumoto further discloses:

Re claim 2: A game apparatus further comprising a virtual-camera setting programmed logic

circuitry for arranging the virtual camera in a location determined in a predetermined manner

toward a point of regard, and setting a direction of said virtual camera (col 8, lines 1-20) in such

a manner as to face said point of regard (col 8, lines 25-55); wherein said reference location (col

9, lines 1-40) is a location of said point of regard, said virtual-camera-location updating

programmed logic circuitry updates in order the location of said virtual camera by updating in

order the location of said point of regard in such a manner that a distance from said target

location to the location of said point of regard is shortened at a predetermined ratio irrespective

of whether or not said player character has continued to move (abstract; col 1, lines 55-67; col 2,

lines 1-21; col 3, lines 25-40; col 8, lines 20-65; col 13, lines 14-27; figures 5-10).

Re claim 3: A game apparatus further comprising a virtual-camera setting programmed logic

circuitry for arranging the virtual camera in a location determined in a predetermined manner

toward a point of regard (col 8, lines 25-55), and setting a direction of said virtual camera in such

a manner as to face said point of regard; wherein said reference location is a location of said

virtual camera, said target location is an initial location of said virtual camera that moves in

conjunction with said player character, said virtual-camera-location updating programmed logic

circuitry updates in order the location of said virtual camera in such a manner that a distance

from said target location to the location of said virtual camera is shortened at a predetermined

ratio irrespective of whether or not said player character has continued to move (abstract; col 1,

lines 55-67; col 2, lines 1-21; col 3, lines 25-40; col 8, lines 20-65; col 13, lines 14-27).

Re claim 4. A game apparatus according to claim 1, further comprising a distance determining

programmed logic circuitry for setting a maximum distance that uses said target location as a

reference, and determining whether or not the distance from the target location to said reference

location is rendered longer than said maximum distance; and a forcedly updating programmed

logic circuitry for forcedly updating said reference location to a location within the maximum

distance that uses said target location as a reference when determined by said distance

determining means that the distance is rendered longer than said maximum distance (abstract; col 1, lines 55-67; col 2, lines 1-21; col 3, lines 25-40; col 8, lines 20-65, Fig 5).

Re claim 5: said camera-location updating programmed logic circuitry includes a reference-location calculating programmed logic circuitry for calculating an updated reference location, and said distance determining programmed logic circuitry determines whether or not said updated reference location calculated by said reference-location calculating programmed logic circuitry is rendered longer than the maximum distance from said target location (col 7, lines 22-67; col 8, lines 1-67; col 9, lines 1-37).

Re claim 6. A storing medium that stores a control program of a virtual camera executed by a computer of a game apparatus (col 2, lines 5-15; col 6, lines 12-15, and 38-52) in which the virtual camera arranged in a three-dimensional game space (col 6, lines 1-12) is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a display as a game image (abstract; col 3, lines 5-20, col 9, lines 40-67; col 10, lines 1-7), the control program of said virtual camera allows said computer to be functioned to provide: an input-information obtaining programmed logic circuitry for obtaining input information input through a controller by a player at intervals of a predetermined number of frames in order to move said player character in said game space (col 1, lines 62-67; col 2, lines 1-15; col 6, lines 30-39 and 62-67); a location updating programmed logic circuitry for updating the location of said player character and said target location in said game space based on said input information; a virtual-camera-location

updating programmed logic circuitry for updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location of said virtual camera at a predetermined ratio is shortened irrespective of whether or not said player character has continued to move; and a game-image generating programmed logic circuitry for generating the game image based on the updated location of said player character and location of said virtual camera (abstract; col 1, lines 55-67; col 2, lines 1-21; col 3, lines 25-40; col 8, lines 20-65; col 13, lines 14-27).

Re claim 7. A method of controlling a virtual camera in a game apparatus in which the virtual camera arranged in a three-dimensional game space (col 6, lines 1-12) is made to follow a target location determined by a location of a player character in the game space so that a behavior of the player character in the game space is displayed in a display as a game image (col 9, lines 40-67; col 10, lines 1-7) comprising following steps of:

(a) obtaining input information input through a controller by a player at intervals of the predetermined number of frames in order to move said player character in said game space (col 6, lines 30-39 and 62-67),

(b) updating the location of said player character and said target location in said game space based on said input information (col 6, lines 30-39 and 62-67),

(c) updating in order a location of said virtual camera in such a manner that a distance from said target location to a reference location determined in a predetermined manner toward the location

of said virtual camera at a predetermined ratio is shortened irrespective of whether or not said

player character has continued to move (col 13, lines 14-27), and

(d) generating the game image based on the updated location of said player character and

location of said virtual camera (col 8, lines 6-19; col 9, lines 40-67; col 10, lines 62-67).

Re claim 8, a game apparatus in which a virtual camera arranged in a three-dimensional game

space is made to follow a target location determined by a location of a player character in the

game space so that a behavior of the player character in the game space may be displayed as a

game image, comprising: an input-information obtaining programmed logic circuitry for

obtaining input information input through a controller by a player at intervals of a predetermined

number of frames in order to move said player character in said game space; a location updating

programmed logic circuitry for updating the location of said player character and said target

location in said game space based on said input information; a virtual-camera-location updating

programmed logic circuitry for sequentially updating, on a frame by frame basis, a location of

said virtual camera in such a manner that a distance between said target location and a reference

location that is determined with respect to the location of said virtual camera is made smaller at a

predetermined ratio per frame irrespective of whether or not said player character has continued

to move; and a game-image generating programmed logic circuitry for generating the game

image based on the updated location of said player character and location of said virtual camera

(cols 7-8).

Re claim 9, a game apparatus according to claim 8, further comprising a virtual-camera setting programmed logic circuitry for arranging the virtual camera in a location determined in a predetermined manner toward a point of regard, and setting a direction of said virtual camera in such a manner as to face said point of regard; wherein said reference location is a location of said point of regard, said virtual-camera-location updating programmed logic circuitry sequentially updates, on a frame by frame basis, the location of said virtual camera by sequentially updating the location of said point of regard in such a manner that a distance between said target location and the location of said point of regard is made smaller at a predetermined ratio per frame irrespective of whether or not said player character has continued to move (cols 7-8).

Re claim 10, a game apparatus according to claim 8, further comprising a virtual-camera setting programmed logic circuitry for arranging the virtual camera in a location determined in a predetermined manner toward a point of regard, and setting a direction of said virtual camera in such a manner as to face said point of regard; wherein said reference location is a location of said virtual camera, said target location is an initial location of said virtual camera that moves in conjunction with said player character, said virtual-camera-location updating programmed logic circuitry sequentially updates, on a frame by frame basis, the location of said virtual camera in such a manner that a distance between said target location and the location of said virtual camera is shortened at a predetermined ratio irrespective of whether or not said player character has continued to move (cols 7-8).

Re claim 11, a game apparatus according to claim 8, further comprising a distance determining

programmed logic circuitry for setting a maximum distance that uses said target location as a

reference, and determining whether or not the distance from the target location to said reference

location is rendered longer than said maximum distance; and a forcedly updating programmed

logic circuitry for forcedly updating said reference location to a location within the maximum

distance that uses said target location as a reference when determined by said distance

determining programmed logic circuitry that the distance is rendered longer than said maximum

distance (cols 7-8).

Re claim 12, a game apparatus according to claim 11, wherein said camera-location updating

programmed logic circuitry includes a reference-location calculating programmed logic circuitry

for calculating an updated reference location, and said distance determining programmed logic

circuitry determines whether or not said updated reference location calculated by said reference-

location calculating programmed logic circuitry is rendered longer than the maximum distance

from said target location (cols 7-8).

Re claim 13, a storage medium that stores a control program of a virtual camera executed by a

computer in which the virtual camera arranged in a three-dimensional game space follows a

target location determined by a location of a player character in the game space so that a

behavior of the player character in the game space may be displayed as a game image, the

control program of said virtual camera allows execution by said computer to provide: an input-

information obtaining programmed logic circuitry for obtaining input information input through

a controller by a player at intervals of a predetermined number of frames in order to move said

player character in said game space; a location updating programmed logic circuitry for updating

the location of said player character and said target location in said game space based on said

input information; a virtual-camera-location updating programmed logic circuitry for

sequentially updating, on a frame by frame basis, a location of said virtual camera in such a

manner that a distance from said target location to a reference location that is determined with

respect to the location of said virtual camera is made smaller at a predetermined ratio per frame

irrespective of whether or not said player character has continued to move; and a game-image

generating programmed logic circuitry for generating the game image based on the updated

location of said player character and location of said virtual camera (cols 7-8).

Re claim 14, a method of controlling a virtual camera in a three-dimensional game space so as to

follow a target location determined by a location of a player character in the game space so that a

behavior of the player character in the game space may be displayed in a display as a game

image, the method comprising: (a) obtaining input information input through a controller by a

player at intervals of a predetermined number of frames in order to move said player character in

said game space, (b) updating the location of said player character and said target location in said

game space based on said input information, (c) sequentially updating, on a frame by frame

basis, a location of said virtual camera in such a manner that a distance from said target location

to a reference location that is determined with respect to the location of said virtual camera is

made smaller at a predetermined ratio per frame irrespective of whether or not said player

character has continued to move, and (d) generating the game image based on the updated

location of said player character and location of said virtual camera (cols 7-8).

Re claims 1-26, Mizumoto has previously been discussed in the office action dated July 30, 2007

as discussed above. Mizumoto according to the applicant fails to teach at least "a difference

length calculating programmed logic circuitry for calculating at said intervals of said

predetermined number of frames a difference length between a predetermined reference distance

and a distance between said location of said target location and a location of said virtual camera,

[and] a virtual-camera-location updating programmed logic circuitry for updating at said

intervals of said predetermined number of frames in order said location of said virtual camera in

such a manner that said difference length calculated by said difference length calculating

programmed logic circuitry is reduced by a predetermined rate when said difference length

exists. The examiner believes that the features as amended by the applicant are inherent in

calculating the frame by frame movement of a car when/in anticipation of being struck by

another car, further avoiding obstacles and etc. The examiner has further searched and found

Fukuda, a moving picture obtained by photographing a controlled object moving in a virtual

three dimensional field by a virtual camera. The entertainment apparatus is designed so that a

desired feeling of speed can be acquired from the moving picture displayed on a display screen.

A positional relation in the three dimensional field between the controlled object and the virtual

camera is determined so that the virtual camera moves farther from the controlled object

according to a moving speed of the controlled object in the three dimensional field. Accordingly

the virtual camera would move closer to the controlled object according to a moving speed of the

controlled object as well. In Fig 14 of the specification, Fukuda provides detailed explicit disclosures of the method in calculating the difference length at said intervals in predetermined number of frames a difference length between a predetermined reference distance and a distance between said location of said target location and a location of said virtual camera, a virtual camera location updating programmed logic circuitry for updating at said intervals of said predetermined number of frames in order said location of said virtual camera in such a manner that said difference length calculated by said difference length calculating programmed logic circuitry is increase or reduced by a predetermined rate when said difference length exists. The frame by frame calculation methods are also illustrated in figs 7-11. It would have been prima facie obvious to use the method of calculation as Fukuda and Mizumto are of the same field of endeavor of displaying moving objects in a video game.

Response to Arguments

4.   Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KANG HU whose telephone number is (571)270-1344. The examiner can normally be reached on 8-5 (Mon-Thu).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on 571-272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kang Hu/
Examiner, Art Unit 3714

/Ronald Laneau/
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02/19/08